We claim:

1. A voltage-controlled oscillator circuit, comprising:

an LC resonator including an inductor and a first voltage-controlled capacitor for setting an oscillation frequency;

a deattenuation amplifier for providing a negative impedance, said deattenuation amplifier coupled to said LC resonator;

a supply voltage terminal for obtaining a supply voltage, said supply voltage terminal coupled to said deattenuation amplifier; and

a second voltage-controlled capacitor connected in parallel with said first voltage-controlled capacitor;

said second voltage-controlled capacitor having a control terminal coupled to said supply voltage terminal for obtaining a voltage derived from said supply voltage.

2. The oscillator circuit according to claim 1, further comprising:

a voltage source coupling said control terminal of said second voltage-controlled capacitor to said supply voltage terminal.

3. The oscillator circuit according to claim 1, further comprising:

a diode coupling said control terminal of said second voltage-controlled capacitor to said supply voltage terminal.

4. The oscillator circuit according to claim 1, further comprising:

a transistor coupling said control terminal of said second voltage-controlled capacitor to said supply voltage terminal;

said transistor connected as a diode.

5. The oscillator circuit according to claim 4, wherein said transistor is a bipolar transistor.

6. The oscillator circuit according to claim 1, wherein said deattenuation amplifier includes two cross-coupled transistors.

7. The oscillator circuit according to claim 1, wherein:

said first voltage-controlled capacitor includes two variable-capacitance diodes having cathodes connected to one another; and

said second voltage-controlled capacitor includes two variable-capacitance diodes having cathodes connected to one another.